

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Paul W. Watt

Serial No. : Art Unit:

Filed : Examiner:

For : METHODS FOR MAKING BIOPOLYMER SPONGE TUBES

Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

This patent application is division patent application based on USSN 09/164,793, filed October 1, 1998 now under appeal. The following amendments are requested to be entered.

In the Specification:

At page 1, line 3, please add:

"Related Patent Applications

This patent application is a divisional patent application of USSN 09/164,793, filed October 1, 1998."

In the claims, please cancel claims 1-25 and add new claims:

26. (New) A method for producing biopolymer sponges comprising the steps of:
- (a) providing an aqueous dispersion of the biopolymer;
 - (b) introducing the dispersion into a mold;
 - (c) freezing the dispersion to provide a shaped frozen dispersion;
 - (d) heating the mold and releasing the shaped frozen dispersion from the mold;
- and
- (e) drying the released frozen dispersion.

27. (New) The method of claim 26, wherein the mold is a mold for making tubes.

28. (New) The method of claim 27, wherein the mold comprises an outer cylindrical shell having a distal closed end and proximal opened end, a central block being disposed within the shell and resting on the distal closed end of the shell, whereby the block and shell form an annular space therebetween.

29. (New) The method of claim 28, wherein the heating step (d) involves heating the central block.

30. (New) The method of claim 28, wherein the heating step (d) involves heating the outer cylindrical shell.

31. (New) The method of claim 27, wherein the mold comprises an outer cylindrical shell having a distal closed end and a proximal opened end, a mandrel for insertion into the shell, whereby the shell and the mandrel define an annular space along the longitudinal dimension of the shell and mandrel and define an open area between the base of the mandrel and the distal closed end of the shell, the open area contiguous with the annular space when the mandrel is placed in the shell.

32. (New) The method of claim 31, wherein the heating step (d) involves heating the mandrel.

33. (New) The method of claim 31, wherein the heating step (d) involves heating the outer cylindrical shell.

34. (New) The method of claim 27, wherein the mold comprises a cylindrical outer shell opened at both the distal and proximal ends, a mandrel, and a piston, whereby the shell and the mandrel define an annular space along the longitudinal dimensions of the shell and mandrel, the

piston insertable into and through the distal end of the shell, the piston and base of the mandrel defining an open space therebetween, the open space being contiguous with the annular space between the mandrel and shell.

35. (New) The method of claim 34, wherein the heating step (d) involves heating the mandrel.

36. (New) The method of claim 34, wherein the heating step (d) involves heating the shell.

37. (New) The method of claim 34, wherein the heating step (d) involves heating the piston.

38. (New) The method of claim 27, wherein the mold comprises an array of wells defining the outer parts of the mold, a complimentary array of mold mandrels for insertion into the wells, wherein the floor of each mold well is mounted on a piston which is slideably moveable inside the well to push the frozen dispersion out of the wells.

39. (New) The method of claim 38, wherein the heating step (d) involves heating the mandrels.

40. (New) The method of claim 38, wherein the heating step (d) involves heating the array of wells.

41. (New) The method of claim 38, wherein the heating step (d) involves heating the pistons.

REMARKS

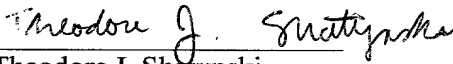
This patent application is a divisional of USSN 09/164,793, filed October 1, 1998, now under appeal, and claims subject matter directed to methods of making biopolymer tube disclosed in the original specification but not previously claimed.

Support for claims 26-41 may be found in the specification for example, on page 6, lines 14-21; page 7, lines 17-26; page 7, line 28 to page 8, line 3; Figs. 1(a) to 1(d); Figs 2(a) to 2(d); Figs. 3(a) to 3(d), Example 1, page 7; Example 2, pages 11 to 12.

Favorable consideration and early notice of allowance are earnestly solicited. If any questions arise which can be disposed through interview, the Examiner is encouraged to contact Applicants' attorney at the telephone number listed below.

Please charge any fees which may be required for this submission to Johnson & Johnson Deposit Account No. 10-0750/JJM-575/TJS.

Respectfully submitted,


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